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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/220,724	12/24/98	ABBOTT A	P-5351

EXAMINER	
PRIETO, B	
ART UNIT	**PAPER NUMBER**
2152	6

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DATE MAILED: 03/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/220,724	ABOTT ET. AL.
Examiner	**Group Art Unit**
Beatriz Prieto	2152

☒ Responsive to communication(s) filed on *Dec 24, 1998*

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-9* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-9* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☒ The proposed FORMAL drawing correction, filed on *Jan 27, 2000* is ☒ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). *4*

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Detailed Action

Drawings

1. Formal drawings filed 01/27/00 were not objected to by the Draftsperson under 37 CFR 1.84 or 1.152, and stamped approved.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims **1, 3 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable **over Bohannon et. al. (Bohannon)** U.S. Patent No. **6,134,324.**

Regarding claims 8 and 1, Bohannon teaches the invention substantially as claimed, Bohannon teaches a system/method related to software distribution (Fig. 16, col 1/lines 13-15, 34-48, col 2/lines 53-57), specifically teaching a system/method for the distribution of hierarchical software (col 6/line 62-col 7/line 17), wherein for allowing distribution of a software package comprising at least a first and second package (col 6/lines 21-25, col 6/lines 64-col 7/line 6) to a plurality of target (1606-1610) nodes, said apparatus comprising: a distribution (1604) node for transmitting packages of software and at least one branch node in communication with said distribution node (col 3/lines 54-67); and first (1606) and second (1610) target nodes, said first target node being in communication with said branch node via a first network link (Fig. 16), and said second target node being in communication with said branch node via a second network link; said first package already being present on said second target node; (means for determining software that may be needed on said target node based on the knowledge of existing software, col 5/lines 21-30, col 9/lines 37-44, inferring new needed software based on old existing software knowledge, col 3/lines 48-53); said branch node being arranged to receive each of said first and second packages from said

distribution node independently (means for receiving first and second software package for distribution node independently form each target node, col 5/lines 42-46, col 6/lines 44-55, independent from said packages, col 7/lines 1-15, col 1/lines 34-48); said branch node being arranged to transmit said first package via said first and second network links to said first and second target nodes (col 1/lines 34-48, col 4/lines 55-67), and said second package via said second network link to said second target node (Fig. 16); and said target nodes being arranged to distribute by loading for execution on e.g. computer readable storage media of the system containing processing means (i.e. install) each package once the package is received via distribution means (col 2/lines 54-63, col 3/lines 15-29); whereby the complete software package is installed on each of said first and second target nodes (entire product comprising file sets, col 2/lines 64-col 3/line 4, entire suite of software package, col 5/lines 21-30);

However Bohannon does not explicitly denote "software package" comprising at least a "first" and "second" package distributed to a plurality of "target nodes", said apparatus comprising: a "distribution (1604) node" for transmitting packages of software and at least one "branch node" in communication with said distribution node;

It would have been obvious to ordinary skilled in the art at the time the invention was made to implement Bohannon's teaching having a system/method comprising software product (software package) comprising a plurality of files and/or set of files, a plurality of customer (target) nodes to which software (complete product or set of files) are delivered from a distribution (third party vendor) node, element performing the same claimed functions, motivation would to implement an improved technique for distributing a plurality of software products to all users of any or all of the products, while limiting usage thereof on a user-by user basis, allowing software vendor to distribute multiple software products on one or more mass-produced volumes of a mass storage media device, enabling each target node customer to load only a specified portion of the products.

Regarding claim 3, Bohannon further teaches means wherein said first branch node is provided with information regarding which packages should be forwarded to which target nodes (col 3/lines 54-67, col 5/lines 21-30).

4. Claims **2, 4, 7 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable **over Bohannon et. al. (Bohannon)** U.S. Patent No. **6,134,324** in view of **Otto** U.S. Patent No. **5,706,431**.

Regarding claim 4, however Bohannon does not explicitly teach wherein a first branch node is in communication with said first target node via a second branch node, said second branch node being in communication with said first branch node via said first network link, and said second branch node being in communication with said first target node via a third network link; said second branch node being further in communication with a third target node via a fourth network link.

Otto teaches a system method related to software distribution (abstract, software distribution: col 2/lines 45-48, means for loading/installing software: col 1/lines 47-65) in a hierarchical nodal structure (col 1/lines 16-21, col 3/lines 29-49) system (100) wherein a first branch (120a) node acting as a server is in communication with said first target (140a) node acting as a client via a second branch (130a) node acting as a server, said second branch (130a) node being in communication with said first branch (120a) node via said first network communication (410) links, and said second branch (130a) node being in communication with said first target (140a) node via a third network link; said second branch (130a) node being further in communication with a third target node (140b) via a fourth network link as illustrated on Fig. 1 and 4, wherein said first branch node is provided with information regarding which packages should be forwarded to which target nodes (col 2/lines 24-col 3/line 6, communication between all nodes: col 5/lines 7-31).

It would have been obvious to one ordinary skilled in the art at the time the invention was made to modify Bohannon's system with mean for structuring a first branch node is in communication with said first target node via a second branch node, said second branch node being in communication with said first branch node via said first network link, and said second branch node being in communication with said first target node via a third network link; said second branch node being further in communication with a third target node via a fourth network link, as taught by Otto, motivation would be implement a hierarchical software distribution architecture to relieves a single server of distribution node from performing all distribution/update functions by branching the functions performed by a single node to multiple nodes and further branch theses functions to subsequent branching levels preventing prior arts distribution bottleneck problems,

decreasing overall performance as the network expands, implementing a more fault tolerant scalable network architecture.

Regarding claim 5, the combined teachings of Bohannon and Otto as discussed above, further teaches means wherein each of said branch nodes is provided with information regarding target nodes to which each branch node is responsible for sending said packages and which of said first and second packages are required by said nodes (Bohannon: col 3/lines 54-67, col 5/lines 21-30, Otto: col 8/lines 22-40, col 8/lines 63-col 9/line 38) ; and wherein each branch node forwards the information to subsequent nodes along each branch (Otto: col 2/lines 24-44, col 3/lines 7-19), editing said information for each branch to include only target customer nodes reached via that branch (Bohannon: col 3/lines 54-67).

Regarding claim 6, the combined teachings of Bohannon and Otto as discussed above, further teach means wherein each of said branch nodes is provided with information regarding the target nodes which require each of said first and second packages, and is further provided with information regarding which of said target nodes said branch node is responsible for forwarding information to from said distribution node and which immediate branches the branch node uses to reach each of said target nodes for which it is responsible; whereby each branch node can ascertain which packages should be forwarded along each immediate branch (Otto: col 8/lines 22-40, col 8/lines 63-col 9/line 38).

Regarding claim 7, the combined teachings of Bohannon and Otto as discussed above, further teaches means wherein said first package comprises at least two subpackages and wherein installation of said two subpackages on each of said target nodes must be performed in a specified order; wherein installation of one of said sub-packages has already occurred on said first target node; and wherein both of said subpackages are distributed to said first target node and neither of the sub-packages are sent to said second target node (Otto: col 8/lines 22-40, col 8/line 63-col 9/line 38, Bohannon: means for determining a first package already being present on said second target node, by determining software that may be needed on said target node based on the knowledge of existing software, col 5/lines 21-30, col 9/lines 37-44, inferring new needed software based on old existing software knowledge, col 3/lines 48-53, distributing accordingly).

Regarding claim 9, the combined teachings of Bohannon and Otto as discussed above, further teaches a method of distributing a software package to at least a first and second target node over at least one common network link between (Bohannon: Fig. 16 common link between distribution node and branch node for distributing software packages to first-second node), said software package comprising at least a first package and a second package (Bohannon: col 5/lines 21-30, col 9/lines 37-44, col 3/lines 48-53), said first software package already being present on said second node, said method comprising the steps of; sending said software package over said common network link; (Bohannon: e.g. link between the acting branch node and the acting distribution node, Fig. 16); thereafter sending only said second package to said second target node (Bohannon: sending means by acting branch node, col 3/lines 54-67, col 5/lines 21-30, col 9/lines 37-44, determining/sending need only software or all, col 3/lines 48-53, sending independently for each target node, col 5/lines 42-46, col 6/lines 44-55, independent from said packages, col 7/lines 1-15, col 1/lines 34-48, transmitting said first package via said first and second network links to said first and second target nodes, col 1/lines 34-48, col 4/lines 55-67 and sending said software package to said first target node); whereby both the first and second packages are distributed to both said first and second target nodes (Bohannon: col 15/lines 5-22, col 2/lines 64-col 3/line 4, col 3/lines 48-67, col 5/lines 21-30, 42-46);

Regarding claim 2, the combined teachings of Bohannon and Otto as discussed above, further teaches means wherein said software package is sent as a contiguous package over said first network link (Otto: sequences of data over communication links: col 5/lines 7-30).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Beatriz Prieto** whose telephone number **is (703) 305-0750**. The Examiner can normally be reached on Monday-Friday from 6:30 to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, **Mark H. Rinehart** can be reached on **(703) 305-4815**. The fax phone number for the organization where this application or proceeding is assigned is **(703) 308-6606**. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is **(703) 305-3800/4700.**

6. Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 305-7201 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

7. Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Fourth Floor (Receptionist), further ensuring that a receipt is provided stamped "TC 2100".

B. Prieto
Patent Examiner
March 9, 2001

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PRIMARY EXAMINER